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Compilation of Data Sources Used to Construct Bottom-Sediment Province Maps for the United States East Coast Continental Shelf from Cape Kennedy to Cape Hatteras and for Various Indonesian Waters

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Introduction

The purpose of this report is to document the data sources used to construct maps and digital databases of bottom-sediment type for a portion of the continental shelf off the eastern United States and for Indonesian waters. The east coast mapping region extends from approximately 28 deg-30 min N (Cape Canaveral) to 35 deg-30 min N (Cape Hatteras). Mapping of the Indonesian waters includes the Banda, Ceram, Molucca, Halmahera, and Flores Seas (see the attached figures showing the approximate boundaries of the mapped areas).

Approach

The following is a brief outline of the approach used to construct the bottom-sediment maps for each region. A more detailed discussion can be found in Bowles and Phelps (1999; Naval Research Laboratory Report NRL/MR/7432—99-8223).

1. National Imagery and Mapping Agency (NIMA) nautical charts are used as the working (base) charts for each region. These charts are readily available from the NAVOCEANO library and feature bottom sediment data in addition to bathymetric data and coastlines.
2. An extensive literature and institutional search is performed to identify and acquire existing bottom-sediment data in each region. These data are in the form of point data (core, dredge, grab samples) with associated sediment-type descriptors, or existing sediment-type boundary maps.
3. As data is acquired, it is carefully assessed, geo-referenced (in the case of existing sediment maps) and transferred to the base charts. Once all the data is transferred, boundaries are drawn around the point data designating areas (provinces) of similar sediment type. These province boundaries are then merged with the boundaries from existing sediment maps.
4. Upon completion of the maps, the information on each map is digitized. The digitized information consists of separate files for land boundaries, sediment-province boundaries, and point data. The point

data files consist of individual files for sand, silt, clay, rock, etc. The sediment nomenclature used to identify bottom type follows the enhanced "200 Categories" set defined in the current NAVOCEANO Master Sediment Tables.

EAST COAST, UNITED STATES

NIMA Charts

11480	11510	11523
11488	11511	11531
11490	11512	11532
11502	11513	11535
11503	11516	11536
11504	11517	11537
11506	11520	11539
11508	11521	11542
11509	11522	11543

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INDONESIAN WATERS:

NIMA Charts Used

72131	73018	73291
73000	73020	73451
73002	73022	73461
73004	73024	73470
73006	73034	73471 (2981)
73008	73130	73481
73010	73141	73760
73012	73261	
73016	73271	

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